

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
17 February 2005 (17.02.2005)

PCT

(10) International Publication Number  
**WO 2005/014258 A1**

(51) International Patent Classification<sup>7</sup>: **B29C 44/56**,  
B05D 1/14

(74) Agents: **FINCK, Dieter et al.**; von Fünser Ebbinghaus  
Finck Hano, Mariahilfplatz 2 & 3, 81541 München (DE).

(21) International Application Number:  
PCT/EP2003/007814

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 18 July 2003 (18.07.2003)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (*for all designated States except US*): **ARMA-CELL ENTERPRISE GMBH** [DE/DE]; Robert-Bosch-Strasse 10, 48153 Münster (DE).

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

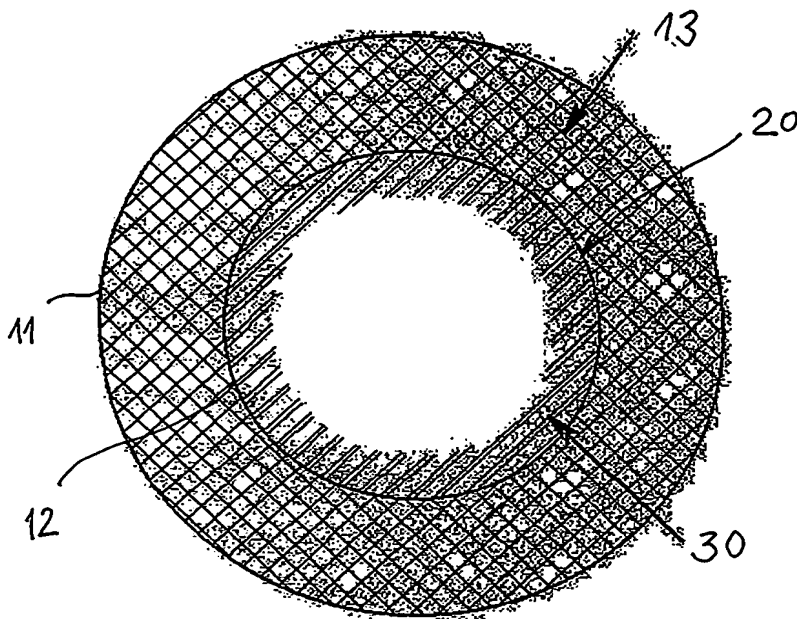
(75) Inventors/Applicants (*for US only*): **MELLER, Mika** [CH/CH]; Hohlgasse 6, CH-6233 Büron (CH). **WEIBEL, Jürg** [CH/CH]; Rebstock 15, CH-6332 Hagendorn (CH). **DAVIS, Stephen, C.** [US/US]; 118 Marin Drive, Chapel Hill, NC 27516 (US). **WHITE, Scott, A.** [US/US]; 2805 Vestry Way, Raleigh, NC 27613 (US). **PRINCELL, Charles** [US/US]; 5625 Mountainside Court, Hickory, NC 28601 (US).

**Published:**

— with international search report

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: POLYMERIC FOAM TUBE FOR PIPE INSULATIONS AND METHOD FOR CONTINUOUSLY PRODUCING SUCH A TUBE



(57) Abstract: The foam tube (13) for pipe insulations has an external surface (11) and an internal surface (12). The internal surface is provided with an adhesively bonded layer of fibers (30). The fibers consist of a material having a melt temperature that is higher than that of the polymeric foam (13). The fibers are adhesively bonded to the internal surface (12) such as to stand up from the internal surface. The fibers (20) are substantially uniformly distributed over the internal surface (12) providing a surface coverage of 2 to 20 percent. Further, the fibers have a linear density of 0,5 to 25 dtex and a length of 0,2 to 5 mm. With this fiber layer the polymeric foam tube has an improved thermal resistance and thermal conductivity.

WO 2005/014258 A1